

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of )  
 )  
MOTOROLA, INC. )  
 )  
Request for Declaratory Ruling or, in the )  
Alternative, Waiver of the Commission's Rules )

**ORDER**

**Adopted: November 5, 2010**

**Released: November 9, 2010**

By the Deputy Chief, Mobility Division, Wireless Telecommunications Bureau:

1. *Introduction.* This *Order* addresses a request filed by Motorola Inc. (Motorola) for a blanket waiver of the required five megahertz separation between paired 450-470 MHz band base and mobile frequencies.<sup>1</sup> For the reasons set forth below, we deny the request.

2. *Background.* Frequencies in the 450-470 MHz band can be assigned singly for simplex operations or in pairs for duplex operations, but paired frequencies must have a five megahertz separation.<sup>2</sup> Low power systems authorized pursuant to Section 90.267 of the Commission's Rules<sup>3</sup> operate either with a 450-455 MHz base transmit frequency and a 455-460 MHz mobile transmit frequency five megahertz higher, or with a 460-465 MHz base transmit frequency and a 465-470 MHz mobile transmit frequency five megahertz higher.<sup>4</sup> Motorola seeks a blanket waiver of the required separation for low power systems authorized pursuant to Section 90.267.<sup>5</sup> It argues that a waiver would serve the public interest by promoting more effective utilization of spectrum, because it would facilitate the deployment of low power repeaters with non-standard separation to avoid the occurrence of intermodulation interference when multiple repeater cells are used within close proximity.<sup>6</sup>

3. In response to a *Public Notice* seeking comment on Motorola's request,<sup>7</sup> three commenters – the Association of Public Safety Communications Officials International, Inc. (APCO), Enterprise Wireless Alliance (EWA), and Scott Adams (Adams) -- opposed the request. Motorola filed

<sup>1</sup> Motorola Inc. Request for Declaratory Ruling or, in the Alternative, Waiver of the Commission's Rules (filed Mar. 4, 2010) (Request). Motorola subsequently withdrew the portion of the Request seeking a declaratory ruling. See Motorola reply comments at 3. Motorola also withdrew a prior a request for declaratory ruling. See Letter dated Mar. 11, 2010 from Robert L. Pettit, counsel to Motorola, to Marlene H. Dortch, Secretary, Federal Communications Commission (withdrawing Motorola Inc. Request for Declaratory Ruling (filed July 13, 2009)).

<sup>2</sup> See 47 C.F.R. §§ 90.173(i), 90.267(a); see also Vulcan Materials Co., *Order*, 24 FCC Rcd 3239, 3239-40 ¶ 3 (WTB MD 2009) (*Vulcan*); Cavalier Operating Co., LLC, *Order*, 22 FCC Rcd 7322, 7322-23 ¶ 3 (WTB MD 2007) (*Cavalier*).

<sup>3</sup> 47 C.F.R. § 90.267.

<sup>4</sup> See 47 C.F.R. § 90.267(b)-(g).

<sup>5</sup> See Request at 8.

<sup>6</sup> *Id.* at 8-9.

<sup>7</sup> See Wireless Telecommunications Bureau Seeks Comment on Motorola, Inc. Request for Interpretation or Waiver of Section 90.267 of the Commission's Rules Regarding 450-470 MHz Band Low Power Operations, *Public Notice*, WT Docket No. 10-74, 25 FCC Rcd 2701 (WTB MD 2010).

reply comments.

4. *Discussion.* To obtain a waiver of the Commission's Rules, a petitioner must demonstrate either that the underlying purpose of the rule(s) would not be served or would be frustrated by application to the present case and that grant of the waiver would be in the public interest; or that, in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.<sup>8</sup>

5. Specifying a uniform separation between base and mobile operations is intended, *inter alia*, to standardize the frequency bands on which base and mobile station operations will occur, which facilitates reuse of the spectrum by other licensees.<sup>9</sup> The commenters oppose the blanket waiver request on the grounds that use of non-standard frequency pairs would increase the complexity of frequency coordination,<sup>10</sup> result in overlapping coordinations and co-channel interference,<sup>11</sup> and wastefully “orphan” the unused sides of standard channel pairs.<sup>12</sup>

6. To address some of these concerns, Motorola suggests limits on the scope of the blanket waiver. First, it clarifies that it proposes only to pair 450-455 MHz base transmit frequencies with 465-470 MHz mobile transmit frequencies, with no change to the standard orientation of base transmit frequencies on the low side of the pair and mobile transmit frequencies on the high side.<sup>13</sup> In addition, it proposes that applicants proposing to operate pursuant to the waiver coordinate both their proposed 450-455 MHz base transmit frequency and the 460-465 MHz base transmit frequency corresponding to their proposed 465-470 MHz mobile transmit frequency.<sup>14</sup> Motorola also proposes that licensees operating pursuant to the waiver be required to monitor not only their 450-455 MHz base transmit frequency, but also the 460-465 MHz base transmit frequency corresponding to their 465-470 MHz mobile transmit frequency.<sup>15</sup> Finally, Motorola proposes<sup>16</sup> that the waiver not apply to low power frequencies reserved for public safety use.<sup>17</sup> Motorola believes that these measures will make operations pursuant to the waiver little or no more likely to cause interference than low power operations using standard channel pairings.<sup>18</sup>

---

<sup>8</sup> See 47 C.F.R. § 1.925(b)(3).

<sup>9</sup> See *Vulcan*, 24 FCC Rcd at 3240 ¶ 5; *Cavalier*, 22 FCC Rcd at 7323 ¶ 5.

<sup>10</sup> See APCO comments at 2; EWA comments at 2.

<sup>11</sup> See Adams comments at 1; APCO comments at 2. APCO notes that only the base transmit frequency is coordinated, with the mobile transmit frequency is not listed on the resulting license. See APCO comments at 2.

<sup>12</sup> See APCO comments at 2.

<sup>13</sup> See Motorola reply comments at 3-4.

<sup>14</sup> *Id.* at 5.

<sup>15</sup> See *id.* With respect to how licensees would be able to monitor both their 450-455 MHz base transmit frequency and the 460-465 MHz base transmit frequency corresponding to their 465-470 MHz mobile transmit frequency, Motorola states only, “Mobile/portable devices designed to operate on 450/465 repeaters will be able to monitor the repeater output frequencies of relevant 450/455 repeaters and 460/465 repeaters so the obligation to monitor both can be satisfied by the end user.” *Id.* at 5 n.8.

<sup>16</sup> *Id.* at 6.

<sup>17</sup> See 47 C.F.R. § 90.267(g).

<sup>18</sup> See Motorola reply comments at 6. As Motorola notes, however, nearby licensees operating with a 460-465 MHz base transmit frequency and a 465-470 MHz mobile transmit frequency five megahertz higher would not be monitoring the 450-455 MHz base transmit frequency being used pursuant to the waiver, which could result in interference to the party operating with non-standard channel pairing. *Id.* at 5.

7. We conclude that Motorola has not demonstrated that grant of a blanket waiver is warranted. Its proposals would increase the complexity of frequency coordination in the 450-470 MHz band. Motorola concedes that its proposed conditions would not completely eliminate the increased potential for interference. Also, Motorola has not addressed the detrimental effect on spectrum efficiency of forming one non-standard frequency pair from two standard frequency pairs.

8. Finally, Motorola has not demonstrated that the occurrence of intermodulation interference when multiple repeater cells are used within close proximity is so common a problem that a blanket waiver is required. As EWA notes, the situation occurs only when multiple low power channels are used in a small area.<sup>19</sup> We agree with the commenters that requests for waiver of the required five megahertz separation should continue to be addressed on a case-by-case basis, and granted only where the applicant demonstrates that standard frequency pairs are not usable.<sup>20</sup> We also agree that a blanket waiver would be inappropriate because the waiver process should not be used as a substitute for rulemaking.<sup>21</sup>

9. *Conclusion.* We conclude, based on the record before us, that Motorola has not demonstrated that a blanket waiver of the five megahertz separation between paired 450-470 MHz band base and mobile frequencies is either appropriate or necessary. Requests for waiver of this requirement can and will be addressed on a case-by-case, as warranted by individual circumstances. Therefore, we deny the pending waiver request.

10. Accordingly, IT IS ORDERED that, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Sections 1.2 and 1.925 of the Commission's Rules, 47 C.F.R. §§ 1.2, 1.925, the request for declaratory ruling or, in the alternative, waiver submitted by Motorola Inc. on March 4, 2010 IS DENIED.

11. IT IS FURTHER ORDERED that the request to withdraw filed by Motorola, Inc. on March 11, 2010, IS GRANTED, and the request for declaratory ruling filed on July 13, 2009 IS DISMISSED.

12. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. § 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Scot Stone  
Deputy Chief, Mobility Division  
Wireless Telecommunications Bureau

---

<sup>19</sup> See EWA comments at 2.

<sup>20</sup> See APCO comments at 2; EWA comments at 2-3.

<sup>21</sup> See APCO comments at 2; see also, e.g., Nextel Communications, Inc., *Order*, 14 FCC Rcd 11678, 11691-92 ¶ 31 (WTB 1999). Motorola may pursue a petition for rulemaking if it believes that Section 90.267 should be amended to provide flexibility in pairing low power frequencies under certain conditions.